

ICSE Board
Class IX Biology
Paper - 1

Time: 2 hrs

Total Marks: 80

General Instructions:

1. Answers to this paper must be written on the paper provided separately.
 2. You will **not** be allowed to write during the first **15** minutes. This time is to be spent in reading the question paper.
 3. The time given at the head of the paper is the time allotted for writing the answers.
 4. Attempt **all** questions from **Section I** and **any four** questions from **Section II**.
 5. The intended marks of questions or for parts of questions are given in brackets [].
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SECTION-I (40 Marks)

Attempt **all** questions from this section.

Question: 1

(a) Substitute each phrase with a proper term:

- (i) Enzymes of the digestive system are _____ in nature.
- (ii) Vitamin ____ is water-soluble.
- (iii) _____ are the building blocks of proteins.
- (iv) Small pox is caused by a _____.
- (v) In animals, excess of carbohydrates are stored in the form of _____ in muscles.

[5]

(b) State whether the following statements are True or False:

- (i) Plants have no sense organs.
- (ii) Cross pollination requires abiotic and biotic agents.
- (iii) DDT is a biodegradable waste.
- (iv) Enzymes are pH sensitive.
- (v) Coconut is a dry fruit.

[5]

(c) Name the following:

- (i) The basic unit of life.
- (ii) The causative agent of AIDS.
- (iii) An animal which belongs to Phylum Mollusca.
- (iv) A substance which contains an antitoxin.
- (v) A group of organisms that lack chlorophyll.

[5]

(d) Choose the odd one out:

- (i) Tibia, Femur, Ulna, Tarsals
- (ii) Yeast, *Rhizopus*, *Mucor*, *Spirogyra*
- (iii) Butterfly, Housefly, Ant, Crab
- (iv) Egg, Larva, Nymph, Pupa
- (v) Beri-beri, Scurvy, Goitre, Mumps

[5]

(e) Explain briefly:

- (i) Enzyme
- (ii) Germination
- (iii) Hygiene
- (iv) Plasmasol
- (v) Pollination

[5]

(f) Complete the table:

Name of the disease	Causative agent	Preventive measure
1. Whooping cough		
2. Tetanus		
3. Malaria		
4. AIDS		
5. Diphtheria		

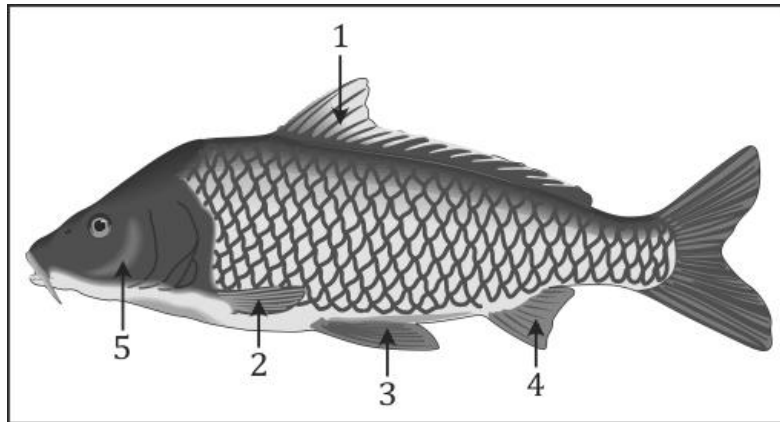
[5]

(g) Select the correct answer from the brackets and complete the following statements:

- (i) Seeds without a distinct region of food storage are called _____ seeds.
(endospermic, non-endospermic)
- (ii) The housefly transmits _____ germs. (rabies, measles, typhoid, AIDS)
- (iii) _____ is a fat-digesting enzyme. (Lipase, Trypsin, Pepsin, Ptyalin)
- (iv) Ribosomes help in _____. (respiration, protein synthesis, secretion, cell division)
- (v) The opening through which water enters into a seed is called the _____.
(micropyle, hilum)

[5]

(h) Study the diagram given below and answer the questions based on it.



- (i) Label the parts 1-5.
- (ii) State the function of part 5.
- (iii) How does the given organism breathe?
- (iv) What do you mean by ectothermal?

[5]

SECTION-II (40 Marks)

Attempt any **four** questions from this section.

Question 2

[10]

(a)

- (i) Explain the structure of a bone.
- (ii) What are the differences between self-pollination and cross-pollination?

(b)

- (i) State the adaptations of fruits and seeds dispersed by animals.
- (ii) How do you propagate the following:
 - 1. Sugarcane
 - 2. Ginger
 - 3. Banana
 - 4. Potato

Question 3

[10]

(a)

- (i) Draw the diagram of a developing pollen grain.
- (ii) What is double fertilisation?

(b) Describe the different methods for food preservation, give the principle of each method with an example of food preserved using that method?

Question 4

[10]

Give reasons:

- (i) People living in hilly regions have swollen necks.
- (ii) The housefly is called 'Public Enemy No. 1'
- (iii) Enzymes are pH sensitive.
- (iv) Most of the food chains contain four to five trophic levels.
- (v) Pancreas is both an exocrine and an endocrine gland.

Question 5

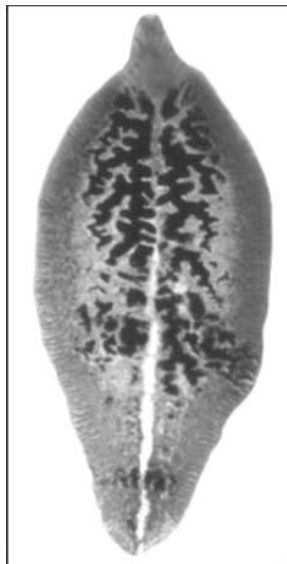
[10]

(a)

- (i) State four functions of the skin.
- (ii) Explain the term: Fermentation.

(b)

- (i) State three features of Phylum Mollusca.
- (ii) The given figure shows an animal.



- 1. Identify the animal.
- 2. To which phylum does it belong?

Question 6

[10]

(a)

- (i) State the disadvantages of vegetative propagation.
- (ii) Distinguish between earthworm and roundworm.

(b)

- (i) What is anaerobic respiration?
- (ii) Write an equation for it.
- (iii) What is tidal volume?

Question 7

[10]

(a) Draw a diagram of a plant cell and label the following parts:

Cell wall, Plastid, Mitochondria, Vacuole, Nucleus.

(b)

- (i) What is grafting? Describe the method of grafting.
- (ii) How will you test for the presence of proteins?